Sectional Door Operators







Sectional Door Operators
for Spring Balanced Doors

Sectional door operators for
spring-balanced doors with
integrated frequency converter

Overhead tractor for spring
balanced sectional doors



Sectional Door Operators
for Springless Doors

Sectional door operators for spring balanced doors

STA, STAC

Our STA 1 operator is the optimum solution for spring-balanced sectional doors. This is ensured by a gearbox specially developed for this application with a three-phase special motor that delivers a lot of power in the smallest space. The motor and gearbox of the STA 1 allow an extremely compact design, the housing is very narrow. The STA 1 series operators are available with a standard hollow shaft or a hollow gear shaft with multi-toothing to accommodate different shaft adapters.

The STAC series is based on the proven STA operator. This is complemented by the CS 255 control unit integrated in the sectional door operator, which makes the STAC series a space-saving and cost-effective solution. It can be operated intuitively via an intelligent push button.



STA 1



STAC 1

STAW, STAWC

The STAW and STAWC series of AC operators are perfect for smaller, spring-balanced sectional doors. STAW and STAWC operators deliver solid performance for a wide range of applications. They are designed for a maximum door area of 20 m^2 and have an equally compact and narrow design as the STA operators. As a result, the AC operators offer a lot of power with little space requirement. Individual customer solutions are also always possible for these operator series.
The STAW series operators are externally controlled. In our STAWC operators, the convenient CS 255 AC control unit is already integrated and can be easily operated via a push button.



STAW 1



STAWC 1

STA, STAC, STAW, STAWC

Operator type
STA 1-10-24 E
STA 1-10-24 E-FR
STA 1-10-24 E-KE
STA 1-10-24 KE
STA 1-10-24 KU
STA 1-10-30 E
STA 1-10-30 E-FR
STA 1-10-30 E-KE
STA 1-10-30 KE
STA 1-10-30 KU
STA 1-10-30 HD E
STA 1-10-30 HD E-FR
STA 1-10-30 HD E-KE
STA 1-10-30 HD KE
STA 1-10-30 HD KU
STA 1-11-19 E
STA 1-11-19 E-FR
STA 1-11-19 E-KE
STA 1-11-19 KE
STA 1-11-19 KU
STA 1-11-24 E
STA 1-11-24 E-FR
STA 1-11-24 E-KE
STA 1-11-24 KE
STA 1-11-24 KU
STA 1-11-24 HD E
STA 1-11-24 HD E-FR
STA 1-11-24 HD E-KE
STA 1-11-24 HD KE
STA 1-11-24 HD KU
STA 1-12-19 E
STA 1-12-19 E-FR
STA 1-12-19 E-KE
STA 1-12-19 KE
STA 1-12-19 KU
STA 1-12-19 HD E
STA 1-12-19 HD E-FR
STA 1-12-19 HD E-KE
STA 1-12-19 HD KE
STA 1-12-19 HD KU
STA 1-13-15 E
STA 1-13-15 E-FR
STA 1-13-15 E-KE
STA 1-13-15 KE
STA 1-13-15 KU

Operator type
STA 1-13-15 HD E
STA 1-13-15 HD E-FR
STA 1-13-15 HD E-KE
STA 1-13-15 HD KE
STA 1-13-15 HD KU
STA 1-14-19 E
STA 1-14-19 E-FR
STA 1-14-19 E-KE
STA 1-14-19 KE
STA 1-14-19 KU
STA 1-5-24 E
STA 1-5-24 E-FR
STA 1-5-24 E-KE
STA 1-5-24 KE
STA 1-5-24 KU
STA 1-8-45 E
STA 1-8-45 E-FR
STA 1-8-45 E-KE
STA 1-8-45 KE
STA 1-8-45 KU
STAC 1-10-24 E
STAC 1-10-24 E-FR
STAC 1-10-24 E-KE
STAC 1-10-24 KE
STAC 1-10-24 KU
STAC 1-10-30 E
STAC 1-10-30 E-FR
STAC 1-10-30 E-KE
STAC 1-10-30 KE
STAC 1-10-30 KU
STAC 1-11-19 E
STAC 1-11-19 E-FR
STAC 1-11-19 E-KE
STAC 1-11-19 KE
STAC 1-11-19 KU
STAC 1-11-24 E
STAC 1-11-24 E-FR
STAC 1-11-24 E-KE
STAC 1-11-24 KE
STAC 1-11-24 KU
STAC 1-12-19 E
STAC 1-12-19 E-FR
STAC 1-12-19 E-KE
STAC 1-12-19 KE
STAC 1-12-19 KU

Operator type
STAC 1-13-15 E
STAC 1-13-15 E-FR
STAC 1-13-15 E-KE
STAC 1-13-15 KE
STAC 1-13-15 KU
STAC 1-14-19 E
STAC 1-14-19 E-FR
STAC 1-14-19 E-KE
STAC 1-14-19 KE
STAC 1-14-19 KU
STAC 1-5-24 E
STAC 1-5-24 E-FR
STAC 1-5-24 E-KE
STAC 1-5-24 KE
STAC 1-5-24 KU
STAC 1-8-45 E
STAC 1-8-45 E-FR
STAC 1-8-45 E-KE
STAC 1-8-45 KE
STAC 1-8-45 KU
STAW 1-6-24 E
STAW 1-6-24 E-FR
STAW 1-6-24 E-KE
STAW 1-6-24 KE
STAW 1-6-24 KU
STAW 1-7-19 E
STAW 1-7-19 E-FR
STAW 1-7-19 E-KE
STAW 1-7-19 KE
STAW 1-7-19 KU
STAWC 1-6-24 E
STAWC 1-6-24 E-FR
STAWC 1-6-24 E-KE
STAWC 1-6-24 KE
STAWC 1-6-24 KU
STAWC 1-7-19 E
STAWC 1-7-19 E-FR
STAWC 1-7-19 E-KE
STAWC 1-7-19 KE
STAWC 1-7-19 KU

Features

STA, STAC

- 2 versions available: STA - external control, STAC - integrated control
- Die-cast aluminum housing, rolled worm shaft and double worm shaft bearings
- Emergency operation via emergency hand crank (KU), emergency hand chain (KE), emergency release (E), emergency release with spring return (E-FR) or maintenance release with emergency hand chain (E-KE)
- Maintenance release optional
- Easy conversion from crank to chain
- Hollow shaft 25.4 mm as standard, special hollow shaft on request
- Supply: 230/400 V/3~/50 Hz
- Thermal protection in the motor winding
- For gate systems with above-average circuits, a operator with an increased motor duty cycle (HD) should be selected
- Pluggable connectors
- End position setting via electronic absolute encoder (AWG) or mechanical limit switches (MEC)
- Special variants such as other voltages and frequencies, different output speeds, higher degrees of protection and hollow shaft Ø on request
- ATEX version available (see chapter „Operators for hazardous areas“)
- For temperature ranges below -20 °C there is suitable oil and electric heating on request

STAW, STAWC

- 2 versions available: STAW - external control, STAWC - integrated control
- Die-cast aluminum housing, rolled worm shaft and double worm shaft bearings
- Emergency operation via emergency hand crank (KU), emergency hand chain (KE), emergency release (E), emergency release with spring return (E-FR) or maintenance release with emergency hand chain (E-KE)
- Maintenance release optional
- Easy conversion from crank to chain
- Hollow shaft 25.4 mm as standard, special hollow shaft on request
- Supply: 230 V/1~/50 Hz
- Thermal protection in the motor winding
- Pluggable connectors
- End position setting via electronic absolute encoder (AWG) or mechanical limit switches (MEC)
- Version with external control, can be combined with extensive control program. Supply: 230 V/1~, frequency: 50/60 Hz and control voltage: 24 V-DC
- For temperature ranges below -20 °C there is suitable oil and electric heating on request
- Increase the maximum cycles per hour and reduce the operator volume by expanding to two capacitors. (Marking „CD“)


Absolute encoder (AWG)


Mechanical limit switches (MEC)


Emergency hand crank (KU)


Emergency hand chain (KE)


Emergency release (E)


Higher duty cycle (HD)


Integrated control


ATEX version possible

Area of use

To select the optimal operator solution, the area of the door in m^2 is required. With the help of this parameter, the right sectional door operator can be determined easily and safely using the table below.

Door size

	Door area (max.) [m^2]
STA 1-5-24	18
STA 1-8-45	30
STA 1-10-24	
STA 1-11-19	
STA 1-10-30	45
STA 1-11-24	
STA 1-12-19	
STA 1-13-15	
STA 1-10-30 HD	50
STA 1-11-24 HD	
STA 1-12-19 HD	
STA 1-13-15 HD	
STA 1-14-19	

The table values take into account a weight of 13 kg/m^2 and assume exact spring balancing. In certain situations, the friction may be greater and must be added up accordingly.

Door size

	Door area (max.) [m^2]
STAW 1-6-24	20
STAW 1-7-19	

The table values take into account a weight of 13 kg/m^2 and assume exact spring balancing. In certain situations, the friction may be greater and must be added up accordingly.

Technical data

STA

Product name catalog	1-5-24	1-8-45	1-10-30	1-10-24	1-10-30 HD	1-11-19	1-11-24	1-11-24 HD
Output torque [Nm]	50	80	100			110		
Output speed [1/min]	24	45	30	24	30	19	24	
Holding torque (min.) [Nm]	600							
Output revolutions (max.)**	20							
Cycles per hour (max.)*	20				30	20		30
Shaft support [mm]	25.4							
Motor power [kW]	0.25	0.55		0.37	0.55	0.37	0.55	
Operating voltage [V]	230 V/3~; 400 V/3~							
Control voltage [V]	24 V-DC							
Rated current in star connection [A]	1.30	1.70	2.00		1.70	2.00	2.40	1.70
Rated current in delta connection [A]	2.30	3.00	3.50		3.00	3.50	4.10	3.00
On-site fuse protection (mains operation 400 V/3~) [A]	16							
On-site fuse protection (mains operation 230 V/3~) [A]	16							
Protection class	IP54							
Continuous sound pressure level (max.) [dB(A)]	70							
Temperature (min./max.) [°C]	-20/60							
Weight [kg]	15				23	15		23

STA

Product name catalog	1-12-19	1-12-19 HD	1-13-15	1-13-15 HD	1-14-19
Output torque [Nm]	120		130		140
Output speed [1/min]	19		15		19
Holding torque (min.) [Nm]	600				
Output revolutions (max.)**	20				
Cycles per hour (max.)*	20	30	20	30	20
Shaft support [mm]	25.4				
Motor power [kW]	0.55				0.65
Operating voltage [V]	230 V/3~; 400 V/3~				
Control voltage [V]	24 V-DC				
Rated current in star connection [A]	2.40	1.70	1.80		2.00
Rated current in delta connection [A]	4.10	3.00	3.10		3.50
On-site fuse protection (mains operation 400 V/3~) [A]	16				
On-site fuse protection (mains operation 230 V/3~) [A]	16				
Protection class	IP54				
Continuous sound pressure level (max.) [dB(A)]	70				
Temperature (min./max.) [°C]	-20/60				
Weight [kg]	15	23	15	23	15

* One cycle corresponds to two travels (opening and closing) of the gate. The values given refer to 10 revolutions of the output shaft per travel and assume an even distribution.

** Alternative limit switch ratios are available on request.

Technical data

STAC

	1-5-24	1-8-45	1-10-24	1-10-30	1-11-19	1-11-24
Output torque [Nm]	50	80	100		110	
Output speed [1/min]	24	45	24	30	19	24
Holding torque (min.) [Nm]	600					
Output revolutions (max.)**	20					
Cycles per hour (max.)*	20					
Shaft support [mm]	25.4					
Motor power [kW]	0.25	0.55	0.37	0.55	0.37	0.55
Operating voltage [V]	230 V/3~; 400 V/3~					
Control voltage [V]	24 V-DC					
Rated current in star connection [A]	1.30	1.70	2.00			2.40
Rated current in delta connection [A]	2.30	3.00	3.50			4.10
On-site fuse protection (mains operation 400 V/3~) [A]	16					
On-site fuse protection (mains operation 230 V/3~) [A]	16					
Protection class	IP54					
Continuous sound pressure level (max.) [dB(A)]	70					
Temperature (min./max.) [°C]	-20/60					
Weight [kg]	15					

STAC

	1-12-19	1-13-15	1-14-19
Output torque [Nm]	120	130	140
Output speed [1/min]	19	15	19
Holding torque (min.) [Nm]	600		
Output revolutions (max.)**	20		
Cycles per hour (max.)*	20		
Shaft support [mm]	25.4		
Motor power [kW]	0.55		
Operating voltage [V]	230 V/3~; 400 V/3~		
Control voltage [V]	24 V-DC		
Rated current in star connection [A]	2.40	1.80	2.00
Rated current in delta connection [A]	4.10	3.10	3.50
On-site fuse protection (mains operation 400 V/3~) [A]	16		
On-site fuse protection (mains operation 230 V/3~) [A]	16		
Protection class	IP54		
Continuous sound pressure level (max.) [dB(A)]	70		
Temperature (min./max.) [°C]	-20/60		
Weight [kg]	15		

* One cycle corresponds to two travels (opening and closing) of the gate. The values given refer to 10 revolutions of the output shaft per travel and assume an even distribution.

** Alternative limit switch ratios are available on request.

Technical data

STAW

	1-6-24	1-7-19
Output torque [Nm]	60	70
Output speed [1/min]	24	19
Holding torque (min.) [Nm]	600	
Output revolutions (max.)**	20	
Cycles per hour (max.)*	8	
Shaft support [mm]	25.4	
Motor power [kW]	0.37	
Operating voltage [V]	230 V/1~	
Control voltage [V]	24 V-DC	
Rated current [A]	6.2	
On-site fuse protection (mains operation 230 V /1~) [A]	16	
Protection class	IP54	
Brake type	Without brake	
Continuous sound pressure level (max.) [dB(A)]	70	
Temperature (min./max.) [°C]	-20/60	
Weight [kg]	15	

STAWC

	1-6-24	1-7-19
Output torque [Nm]	60	70
Output speed [1/min]	24	19
Holding torque (min.) [Nm]	600	
Output revolutions (max.)**	20	
Cycles per hour (max.)*	8	
Shaft support [mm]	25.4	
Motor power [kW]	0.37	
Operating voltage [V]	230 V/1~	
Control voltage [V]	24 V-DC	
Rated current [A]	6.2	
On-site fuse protection (mains operation 230 V /1~) [A]	16	
Protection class	IP54	
Brake type	Without brake	
Continuous sound pressure level (max.) [dB(A)]	70	
Temperature (min./max.) [°C]	-20/60	
Weight [kg]	15	

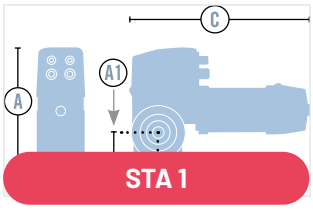
* One cycle corresponds to two travels (opening and closing) of the gate. The values given refer to 10 revolutions of the output shaft per travel and assume an even distribution.

** Alternative limit switch ratios are available on request.

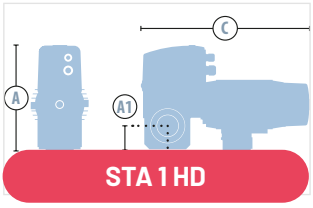
Technical drawings

STA

	1-5-24	1-8-45	1-10-30	1-10-24	1-10-30 HD	1-11-19	1-11-24	1-11-24 HD	1-12-19	1-12-19 HD	1-13-15	1-13-15 HD	1-14-19
A (E)	245	245	245	245	245	245	245	245	245	245	245	245	245
A (KU)	245	245	245	245	245	245	245	245	245	245	245	245	245
A (KE)	245	245	245	245	245	245	245	245	245	245	245	245	245
A (E-FR)	256	256	256	256	256	256	256	256	256	256	256	256	256
B (E)	104	104	104	104	136	104	104	136	104	136	104	136	104
B (KU)	104	104	104	104	136	104	104	136	104	136	104	136	104
B (KE)	104	104	104	104	191	104	104	191	104	191	104	191	104
B (E-FR)	116	116	116	116	136	116	116	136	116	136	116	136	116
C (E)	369	369	369	369	369	369	369	369	369	369	369	369	419
C (KU)	399	399	399	399	399	399	399	399	399	399	399	399	429
C (KE)	409	409	409	409	409	409	409	409	409	409	409	409	389
C (E-FR)	369	369	369	369	369	369	369	369	369	369	369	369	369
A1	55	55	55	55	55	55	55	55	55	55	55	55	55
C1	55	55	55	55	55	55	55	55	55	55	55	55	55



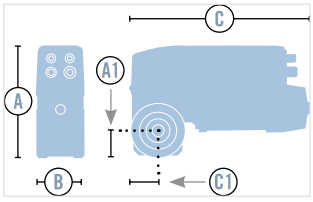
STA 1



STA 1 HD

STAC

	1-5-24	1-8-45	1-10-24	1-10-30	1-11-19	1-11-24	1-12-19	1-13-15	1-14-19
C (E)	369	369	369	369	369	369	369	369	389
C (KU)	399	399	399	399	399	399	399	399	419
C (KE)	409	409	409	409	409	409	409	409	429
A1	55	55	55	55	55	55	55	55	55
C1	55	55	55	55	55	55	55	55	55

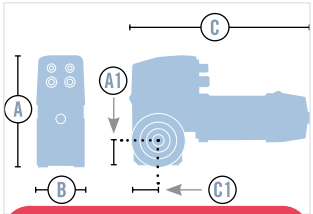


STAC 1

Technical drawings

STAW

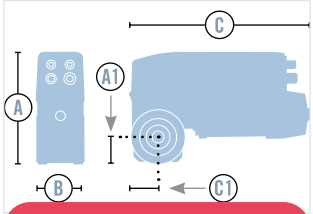
	1-6-24	1-7-19
A (E)	245	245
A (KU)	245	245
A (KE)	245	245
A (E-FR)	256	256
B (E)	104	104
B (KU)	104	104
B (KE)	104	104
B (E-FR)	116	116
C (E)	369	369
C (KU)	399	399
C (KE)	409	409
C (E-FR)	369	369
A1	55	55
C1	55	55



STAW 1

STAWC

	1-6-24	1-7-19
A (E)	245	245
A (KU)	245	245
A (KE)	245	245
A (E-FR)	256	256
B (E)	104	104
B (KU)	104	104
B (KE)	104	104
B (E-FR)	116	116
C (E)	369	369
C (KU)	399	399
C (KE)	409	409
C (E-FR)	369	369
A1	55	55
C1	55	55



STAWC 1

Express Sets



Article

Item no.	Description	Price
188036	**STA 1-10-24 KE** Set for spring balanced sectional doors up to 30 m², 400 V-AC motor, 100 Nm, 24 min-1, AWG, with load contactor control CS 320	on request
188247	**STA 1-10-24 E-KE** Set for spring balanced sectional doors up to 30 m², 400 V-AC motor, 100 Nm, 24 min-1, AWG, with load contactor control CS 320	on request

Scope of delivery

188036

- Operator STA 1-10-24 KE 400 V/3~ AWG 25,4 mm with 1.000 mm reel chain
- Control CS 320 400V/3PH in CS standard housing with 3-fold pushbutton and LC-display in cover, connection cable with CEE-plug 5-pole red
- Cable set with connection terminals and cable bushings in control and operator, 7,000 mm
- Reel chain: 9.000 mm, with 2 chain locks
- Torque support 1 L-shape
- Accessories bag STA Standard
- Spiral cable 5x0.25 mm² with mounting bracket, cable glands, terminals for the control unit and plug for the door leaf junction box, 3,000 mm uncoiled/800-3,200 mm coiled length
- Door leaf junction box with circuit board, opening for spiral cable and 4 cable entries
- F photocell transmitter 10,500 mm/receiver 1,000 mm with 2 F spacer sleeves 11/22 mm

188247

- Operator STA 1-10-24 (E-)KE 400V/3PH AWG 25,4 mm with 1.000 mm chain
- Control unit CS 320 400V/3PH in CS standard housing with 3-fold push button and LCD in cover, connection cable with CEE plug 5-pole red
- Cable set with connection terminals and cable bushings in control and operator, 7,000 mm
- chain, 9.000 mm with 2 chain locks
- Torque support 1 L-shape
- Accessories bag STA Standard
- Spiral cable 5x0.25 mm² with mounting bracket, cable glands, connection terminals for the control unit and plug for the door leaf connection box, 3,000 mm uncoiled/800-3,200 mm coiled length
- Door leaf junction box with circuit board, opening for spiral cable and 4 cable entries
- F photocell transmitter 10,500 mm/receiver 1,000 mm with 2 F spacer sleeves 11/22 mm
- Release cable 6 m (only for STA 1-10-24 E-KE)